B-1257 (0)

INSTRUCTION SHEET

LF1A LED Illumination Unit
LF1A Series

Confirm that the delivered product is what you have ordered.
Read this instruction sheet to make sure of correct operation.
Make sure that the instruction sheet is kept by the end user.

Safety Precautions

In this operation instruction sheet, safety precautions are categorized in order of importance to Warning and Caution :

⚠ WARNING

Warning notices are used to emphasize that improper operation may cause severe personal injury or death.

⚠ CAUTION

Caution notices are used where inattention might cause personal injury or damage to equipment.

⚠ WARNING

- Do not install the luminaire with other the intended Class 2 power unit.
- Before designing the final equipment and powering up the LF1A illumination unit, confirm the specifications secribed on this sheet. If there is any uncertainty in the description, contact IDEC before powering up the LF1A illumination unit.
- Do not disassemble, repair, or modify the LF1A illumination unit, otherwise severe accidents may result, such as electric shocks, damage, fire, or malfunction.
- Turn off the power to the LF1A illumination unit before wiring. Make sure of correct wiring, otherwise electric shocks or damage may result.
- Do not gaze into the LF1A illumination unit while it is lit, and do not project the light to other people, otherwise eyes may be injured.
- Do not pull out or push in the cable of the LF1A illumination unit, otherwise damage may result. Give a slack to the cable while

⚠ CAUTION

- LED modules and illumination units may vary in illumination colors and illuminance.
- Apply a voltage within the rated value, otherwise the LED elements may be damaged.
- The LF1A illumination unit is vulnerable to static electricity. Take a sufficient measure for protection against static electricity and surge voltages.
- Do not apply an excessive force to the LF1A illumination unit. Do not leave a damaged LF1A illumination unit unattended or use a damaged LF1A.
- Make sure of the correct operating temperature, which is the temperature around the LF1A illumination unit. Otherwise internal temperature rise may result in damage.
- Do not use or store the LF1A illumination unit in a place subjected to vibrations and shocks.
- Do not use the LF1A illumination unit in the following places:
  Exposed to direct sunlight, near heaters, and at high temperatures
  Subjected to iron powder, oil, chemicals, and organic gases
  Basements, greenhouses, and other humid places

1 Type No.

Illumination Color	White	Incandesent Light Color	Yellow	Red
A1: 3 LEDs x 2 rows	LF1A-A1-2THWW6	LF1A-A1-2TLWW6	LF1A-A1-2SHY8	LF1A-A1-2SHR8
B1: 6 LEDs x 2 rows	LF1A-B1-2THWW6	LF1A-B1-2TLWW6	LF1A-B1-2SHY8	LF1A-B1-2SHR8
D1: 12 LEDs x 2 rows	LF1A-D1-2THWW6	LF1A-D1-2TLWW6	LF1A-D1-2SHY8	LF1A-D1-2SHR8

2 Specifications

· General Specifications

Type No.		LF1A-*-2 THWW6	LF1A-*-2 TLWW6	LF1A-*-2 SHY8	LF1A-*-2 SHR8
Rated Voltage		24V DC (non-polarized)			
Input Current (at rated voltage)	3 LEDs x 2	75 mA typ. (91.7 mA max.)		90 mA typ. (108.3 mA max.)	
	6 LEDs x 2	150 mA typ. (183.3 mA max.)		180 mA typ. (216.7 mA max.)	
	12 LEDs x 2	300 mA typ. (362.5 mA max.)		360 mA typ. (437.5 mA max.)	
Rated Power (at rated voltage)	3 LEDs x 2	1.8 W typ. (2.2 W max.)		2.2 W typ. (2.6 W max.)	
	6 LEDs x 2	3.6 W typ. (4.4 W max.)		4.4 W typ. (5.2 W max.)	
	12 LEDs x 2	7.2 W typ. (8.7 W max.)		8.7 W typ. (10.5 W max.)	
Operating Temperature		-20 to +50ºC (no freezing)			
Storage Temperature		-25 to +70ºC (no freezing)			
Operating/Storage Humidity		45 to 85% RH (no condensation)			
Life (half luminance) (approx.)		40,000 hours (Ta= 25ºC)			
Insulation Resistance		Between live and dead parts: 100 MΩ (500V DC megger)			
Dielectric Strength		Between live and dead parts: 1000V AC, 1 minute			
Vibration Resistance (damage limits)□		5 to 55 Hz, amplitude 0.5 mm, 20 m/s^2			
Shock Resistance (damage limits)□		980 m/s^2			
Material		Housing : Al End Plate : SPCC Lens : PC Cable Grand : Brass Wire : PVC			
Weight (approx.)		LF1A-A1: 190g, LF1A-B1: 270g, LF1A-D1: 470g			
Degree of Protection		IP40			

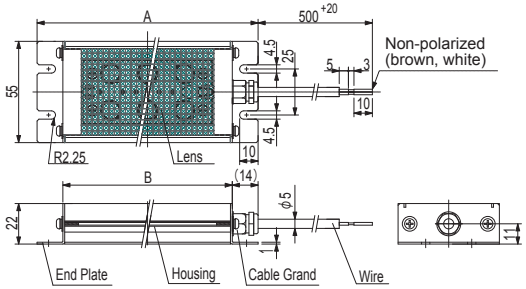
· LED Optical Specifications

Type No.		LF1A-*-2 THWW6	LF1A-*-2 TLWW6	LF1A-*-2 SHY8	LF1A-*-2 SHR8
Illumination Color		White	Incandescent Light Color	Yellow	Red
Luminous Intensity (typ.) (Single module)		6000 mcd	4000 mcd	4000 mcd	2500 mcd
Color Temperature (typ.) / Dominant Wavelength (typ.)		5500K	2800K	590 nm	625 nm
Reference Illuminance (typ.) (at 500 mm)	3 LEDs x 2	190 lx	130 lx	130 lx	85 lx
	6 LEDs x 2	380 lx	260 lx	260 lx	170 lx
	12 LEDs x 2	760 lx	520 lx	520 lx	340 lx

3 Dimensions

· Dimension List

Dimension	A	B	C
LF1A-A1-□	120 mm	92 mm	108 mm
LF1A-B1-□	180 mm	152 mm	168 mm
LF1A-D1-□	300 mm	272 mm	288 mm

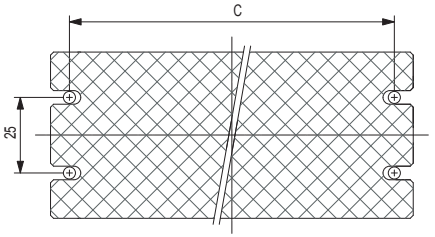


All dimensions in mm.

4 Installation

· Mounting Centers

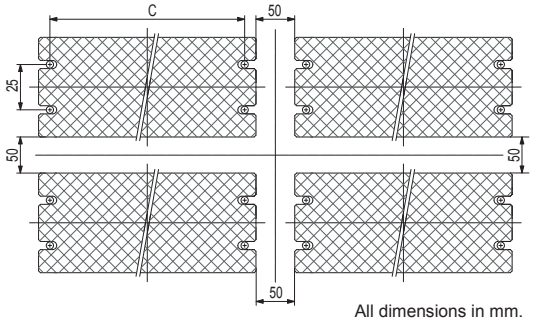
Mount the LF1A illumination unit using four M4 screws.
Tighten the screws to the torque shown below.
M4 screw: 1.3 to 1.7 N·m



All dimensions in mm.

· Close Mounting

When mounting multiple LF1A illumination units closely, keep a minimum spacing of 50 mm between units as shown below.



All dimensions in mm.

· Installing a Protective Cover

When installing a protective cover for the LF1A illumination unit, make sure that the specification values are satisfied during operation.

· Wiring

The LF1A illumination unit is equipped with a cabtyre cable, RO-FLEX 1000T AWG22 x 2 cores (NICHIGOH). When wiring, use an appropriate connector, terminal, or wire to meet the specification values.
When soldering the wires of the cable, use a 20W soldering iron, with a tip temperature of 350ºC, and complete soldering

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